

REMARKS

Reconsideration of the instant application is respectfully requested. The present amendment is responsive to the Office Action of July 28, 2004, in which claims 1-6 are presently pending. Of those, claims 1-3 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,372,618 to Forbes, et al. However, the Examiner has indicated that claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. For the following reasons, it is respectfully submitted that the application is now in condition for allowance.

The Applicants have reviewed the teachings of the Forbes reference and respectfully traverse the Examiner's §102 rejections to claims 1-3 for the reason that Forbes does not teach or suggest forming the upper polysilicon region upon the conductive barrier layer, as is claimed in the instant application. In the present Office Action, the Examiner takes the position that Forbes discloses forming an upper polysilicon region 120 on the conductive barrier layer 110. However, as is plainly shown in Figure 4 of Forbes, it is actually the metal layer 112 that is formed upon the barrier layer 110.

In contrast to the presently claimed invention, the silicon layer 120 of Forbes is only in contact with the sidewalls of the barrier layer 110 (and other materials of the gate stack layer 104), and is more properly described as being formed upon the etch stop layer 117 and the cap layer 114. As stated in col. 5, line 66 - col. 6, line 2 of Forbes:

"A silicon layer 120 is formed over upper surface 118 of substrate 102 (and specifically on etch stop layer 117), along sidewalls 116 of gate stack, and over an upper surface of gate stack 104."

Accordingly, Forbes does not teach an upper polysilicon region upon a barrier region, but instead only illustrates a silicon layer 120 extending along a sidewall of metal

layer 112. (col. 6, lines 36-39) It is therefore respectfully requested that the §102 rejections to claims 1-3 have been overcome.

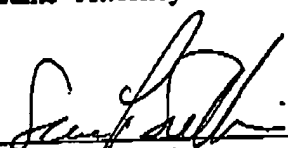
Finally, claim 1 has been amended to correct a typographical omission in the preamble thereof, while dependent claim 7 is newly added to more specifically point out the formation of the upper polysilicon region directly upon a top surface of the conductive barrier layer. Dependent claim 8 is newly added to include a more general dependent limitation concerning the concentration of the lower and upper polysilicon regions.

For the above stated reasons, it is respectfully submitted that the present application is now in condition for allowance. No new matter has been entered and no additional fees are believed to be required. However, if any fees are due with respect to this Amendment, please charge them to Deposit Account No. 09-0458 maintained by Applicant's attorneys.

Respectfully submitted,
OMER DOKUMACI, ET AL.

CANTOR COLBURN LLP
Applicants' Attorneys

By


Sean F. Sullivan
Registration No. 38,328
Customer No. 29371

Date: September 28, 2004
Address: 55 Griffin Road South, Bloomfield, CT 06002
Telephone: (860) 286-2929